

that] the improvement in which the peracid is used in an post-bleaching which is the last step of the bleaching process, the post-bleaching taking place in the presence of one or several earth-alkali metal compounds.

2. (Amended) A method according to Claim 1, [characterized in that] wherein the brightness of the pulp before the post-bleaching carried out with a peracid is at a minimum 85% ISO.

~~3. (Amended) A method according to Claim 1 [or 2, characterized in that] wherein the kappa number of the pulp before the post-bleaching with a peracid is at a maximum 4.~~

4. (Amended) A method according to [any of the above claims, characterized in that] claim 1, wherein the amount of the peracid used for the post-bleaching is 0.1-7 kg/tp[, preferably 0.5-3 kg/tp].

5. (Amended) A method according to claim 4, [characterized in that] wherein the peracid is peracetic acid.

6. (Amended) A method according to [any of the above claims, characterized in that] claim 1, wherein the post-bleaching solution contains a calcium compound[, such as calcium acetate or calcium carbonate].

7. (Amended) A method according to [any of the above claims, characterized in that] claim 1, wherein the post-bleaching solution contains a magnesium compound[, such as magnesium sulfate].

~~8. (Amended) A method according to [any of the above claims, characterized in that] claim 1, wherein the pH of the~~

post-bleaching solution is within the range of 3-8[, preferably 4-7].

9. (Amended) A method according to [any of the above claims, characterized in that] claim 1, wherein the post-bleaching is carried out after the bleach plant steps in a pulp flow pipe, a storage tower and/or the paper machine.

10. (Amended) A method according to [any of the above claims, characterized in that] claim 1, wherein the post-bleaching is carried out in the paper machine or elsewhere at a paper mill.

11. (Amended) The use of a solution which contains a peracid [or] and an earth-alkali metal for the post-bleaching of a delignified pulp at a paper mill.

Please add new claims 12-16:

12. (New) A method according to claim 2 wherein the kappa number of the pulp before the post-bleaching with a peracid is at a maximum 4.

13. (New) A method according to claim 4, wherein the amount of the peracid used for the post-bleaching is 0.5-3 kg/hp.

14. (New) A method according to claim 6, wherein the calcium compound is calcium acetate or calcium carbonate.

15. (New) A method according to claim 7, wherein the magnesium compound is magnesium sulfate.